Communicable Disease Report

Hawai'i Department of Health
Communicable Disease Division

January/February 2000

Gonorrhea in Hawai`i At the Millenium

Background

Gonorrhea is the second most commonly reported communicable disease in the United States. Gonorrhea infection, if left untreated, has serious long term medical consequences for both men and women because it results in infertility. In addition for women, pelvic inflammatory disease (PID) and ectopic pregnancy are also among the common consequences. In the Centers for Disease Control latest Sexually Transmitted Disease (STD) statistical publication, "STD Surveillance 1998" report,[1] Hawai`i ranked 39th among the 50 states and outlying areas (Guam, Puerto Rico and Virgin Islands) with 506 cases reported for a case rate of 42.6 cases per 100,000 population. In 1997, the State of Hawai`i reported 507 cases of gonorrhea resulting in a case rate of 42.7 cases per 100,000 population. This low case rate is consistent with the stable gonorrhea rate over the past 5 years (Figure 1). The gonorrhea rate has slowly decreased since 1994's case rate of 59 cases per 100,000 population to a low rate of 42 cases per 100,000 population in 1998. There were no discernable decreases in any of the major demographic groups by sex, age, race or reporting source over the past 5 years.

1998 Review

Of the 506 gonorrhea cases reported in 1998, 278 (55%) were in women. Of the total number of cases in women, 66% occurred in women aged 24 years and under. Fifty nine percent (59%) of the total gonorrhea cases were reported in the 15-24 year old age group.

Although the military account for only 8.4% of the population of Hawai`i, they reported 33% of the gonorrhea morbidity in 1998. This may be due to the high proportion of single young men and women in the military. This may also account for the disproportionate number of African-Americans with reported gonorrhea infections (13%), although they account for only 2.5% of the state's population. In 1998, the STD Clinic reported 18% of the gonorrhea cases while the private medical sector reported 49% of the cases. Ninety-five percent (95%) of the cases were reported from O`ahu.

By race in 1998, 35% occurred in Asians, 13% in African-Americans, 12% in Whites, 3% in Hispanics and 37% in unknown ethnic groups.

Historical Trends

Reasons for the current low gonorrhea case rates are a combination of popula-

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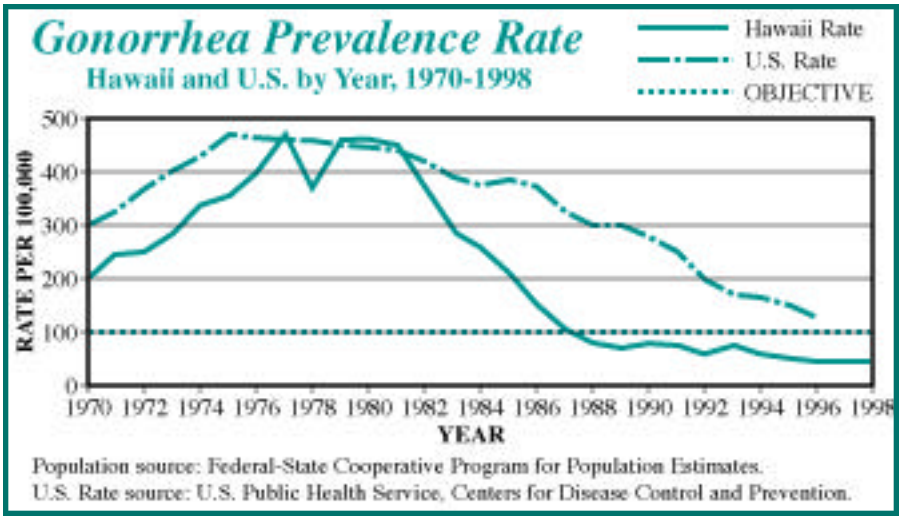

Year 2000 Recommended Childhood Immunization Schedule: United States

The Recommended Childhood Immunization Schedule for 2000 was published in the January 21, 2000 issue of the Morbidity and Mortality Weekly Report (MMWR) and has been approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP).[1]

Highlights of the changes that have occurred since January 1999 include:

- **Removal of Rotavirus Vaccine from the Schedule**
  The ACIP, AAP, and AAFP have recommended removal of Rotashield® (rhesus rotavirus vaccine-tetravalent [RRV-TV]) (Wyeth Laboratories, Inc.) from the schedule. The decision to no longer use RRV-TV in the United States (U.S.) was based on the results of an expedited review of scientific data which indicated a strong association between RRV-TV and intussusception among infants one to two weeks following vaccination. Vaccine use was suspended in July 1999 pending ACIP review, and was withdrawn from the market by the manufacturer in October 1999. Parents should be reassured that children who received the rotavirus vaccine before July are not at increased risk for intussusception now.

- **Inactivated Poliovirus Vaccine for All Four Doses**
  To eliminate the risk for vaccine-associated paralytic poliomyelitis (VAPP), **an all-IPV schedule** is recommended for routine childhood vaccination in the U.S. All children should receive four doses of IPV; at age two months, age four months, between ages six and 18 months, and between ages four and six years. Oral poliovirus vaccine (OPV) may now be used only for the following special circumstances:
  1. Mass vaccination campaigns to control outbreaks of paralytic polio;
  2. Unvaccinated children who will be traveling within four weeks to areas where polio is endemic or epidemic; and
  3. Children of parents who do not accept the recommended number of vaccine injections. These children may receive OPV only for the third or fourth dose or both. In this situation, health-care providers should administer OPV only after discussing the risk for VAPP with parents or caregivers.

  OPV supplies are expected to be very limited in the U.S. after current inventories are depleted.

- **Acellular Pertussis Vaccine**
  The ACIP recommends exclusive use of acellular pertussis vaccines for all doses of the pertussis vaccine series.

- **Hepatitis B**
  There are new recommendations for hepatitis B vaccination of newborn infants with thimerosal-containing vaccines and vaccines that do not contain thimerosal as a preservative[2]:

Mother's HBSAG status at delivery	Recommendation
Positive or unkown	Vaccinate at birth. Use vaccine that does not contain thimerosal as a preservative; if unavailable, use thimerosal-containing vaccine.
Negative	Vaccinate at birth or by age two months. At birth, use vaccine that does not contain thimerosal as a preservative. At two months of age, use either thimerosal-containing vaccine or a vaccine that does not contain thimerosal as a preservative.
Negative-High risk*	Same as "Negative" above, except thimerosal-containing vaccine may be administered at birth.

*Populations or groups that have a high risk for early childhood hepatitis B virus (HBV) transmission include Alaska Natives, Asian-Pacific Islanders, immigrant populations from countries in which HBV is of high or intermediate endemicity, and households with persons with chronic HBV infection.

- **Hepatitis A**
  Hepatitis A (Hep A) vaccine is listed on the schedule for the first time be-

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Communicable Disease Report

Communicable Disease Division	586-4580
Epidemiology Branch	586-4586
Tuberculosis Disease Control Branch	832-5731
Hansen's Disease Control Branch	735-2472
STD/AIDS Prevention Branch	733-9010
STD Reporting	733-9289
AIDS Reporting	733-9010
Information & Disease Reporting	586-4586
After-hours Emergency Reporting	247-2191 (State Operator)
After-hours Neighbor Island Emergency Reporting	800-479-8092

The Health State
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How Are Tuberculosis Cases Discovered?

Hawai`i Tuberculosis Cases From 1994-1998

Review of the Hawai`i Tuberculosis Control Branch program data from January 1, 1994 to December 31, 1998 indicates that 988 tuberculosis cases were reported to the Department of Health (DOH). Most of these cases were identified because the patients presented to a physician with signs or symptoms of tuberculosis, or tuberculosis was identified during the evaluation for a concurrent illness or injury.

Analysis of the reported cases reveals that 580 (58.7%) were detected because the patients reported to a physician for evaluation of symptoms or illness. Immigration screening detected an additional 260 cases (26.3%). There were 45 cases (4.6%) detected from mandatory school-related screening programs, and the majority of these cases were found in foreign-born students entering post-secondary schools. Another 42 cases (4.3%) were discovered by initial tuberculosis screening examinations that are required by Department of Human Services (DHS) programs, health care facilities, the Department of Public Safety, or the Department of Transportation. Foodhandler screening yielded an additional 34 cases (3.4%). Contact and source investigations found 14 cases (1.4%). Only 13 cases (1.3%) were detected through the practice of obtaining sequential chest x-ray examinations of tuberculin reactors or Class 4 (inactive) tuberculosis patients (figure 1).

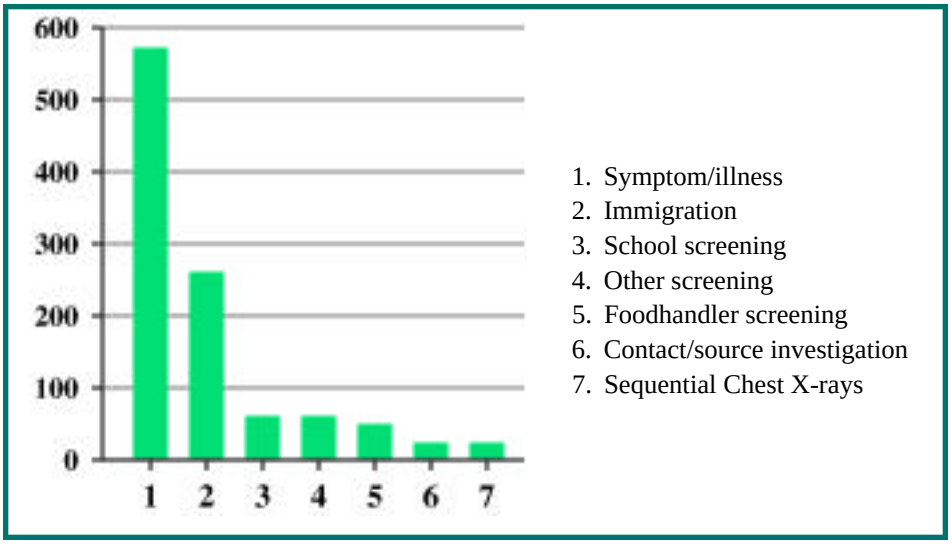

Figure 1. Method of detecting 988 tuberculosis cases in Hawai‘i from 1994-1998.

The practice of requiring three successive annual chest x-rays for tuberculosis clearance in tuberculin reactors is not cost effective. It lacks sufficient clinical value or diagnostic yield to justify the inconvenience to the client, the monetary cost, or added radiation exposure. The practice diverts scarce resources away from more productive tuberculosis control activities.

The United States Public Health Service and the American Thoracic Society no longer advocate repeated chest x-ray examinations for tuberculin reactors, residents of long-term care facilities, and for routine follow-up of asymptomatic tuberculosis patients who have satisfactorily completed treatment.

The DOH Tuberculosis Control Program recommends elimination of the practice of requiring three successive annual chest x-rays in tuberculin reactors in order to obtain a tuberculosis clearance in health care facilities and the DHS programs. It is recommended that the tuberculosis clearance requirement for a tuberculin reactor be satisfied when the initial chest x-ray performed at the time of the tuberculosis screening demonstrates radiographic evidence of freedom from active tuberculosis. No further sequential annual screening chest x-rays are required unless symptoms of tuberculosis occur. These recommendations are in accord with current public health practices across the nation.

REFERENCES.

1. American Thoracic Society, Control of Tuberculosis in the United States. *Am Rev Resp Dis* 1992;146:1628-1629.

   “Persons found to be tuberculin-positive should have a chest radiograph to rule out clinically active tuberculosis or to detect the presence of fibrotic lesions suggestive of old, healed tuberculosis or silicosis; persons with these conditions should receive multi-drug therapy. Once these conditions are ruled out, however, follow-up skin tests and chest radiographs for persons with a positive tuberculin skin test are unnecessary. Such persons should be offered preventive therapy, when appropriate, and should be instructed to seek medical attention should they experience symptoms suggestive of tuberculosis”

2. HHS Publication (FDA) 83-8204. The Selection of Patients for X-ray Examinations: Chest x-ray Screening Examinations. August 1983, 27-29.

   “The yield of tuberculosis cases found by screening or repeated chest x-ray examinations has not been shown to be of sufficient clinical value or productivity to justify the inconvenience to the subject, the monetary cost or added radiation exposure”

   “After an initial evaluation, which should include a chest x-ray examina-

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Immunization Schedule

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cause it is recommended for routine use in some states and regions (Hawai`i is not included in those states where Hep A vaccine is recommended for routine use[3]).

- **Vaccine Information Statements**
  The National Childhood Vaccine Injury Act requires that all health-care providers, whether public or private, give parents or patients copies of Vaccine Information Statements (VIS) before administering each dose of the vaccines listed in this schedule (except for Hep A). VIS's may be obtained from the Hawai`i Immunization Program's Vaccines for Childrens Program or the Centers for Disease Control and Prevention's (CDC) world-wide web site, *http://www.cdc.gov/nip/publications/VIS.*

For further details, please see the enclosed 2000 Recommended Childhood Immunization Schedule, or call the Hawai`i Immunization Program at (808) 586-8332 in Honolulu.

ACIP statements for each recommended childhood vaccine can be vieweed, downloaded, and printed at CDC's National Immunization Program web site, *http://www.cdc.gov/nip/publications/acip-list.htm.*

REFERENCES:

[1] Centers for Disease Control and Prevention. Recommended Childhood Immunization Schedule - United States, 2000. *MMWR*, 2000;49(2):35-38.

[2] Centers for Disease Control and Prevention. Recommendations Regarding the Use of Vaccines That Contain Thimerosal as a Preservative. *MMWR*, 2000;48(43):996-998.

[3] Sugi, Mitsuto, Hepatitis A: ACIP Update. *Communicable Disease Report*, 1999; November-December:14.

Update: Penicillin G Availability

In October 1999, the Food and Drug Administration (FDA) and the Centers for Disease Control (CDC) announced a shortage of penicillin G (potassium and sodium) for intravenous injection as a result of decreased production by a major manufacturer. In response to the shortage, the FDA identified a temporary alternate supplier of penicillin G sodium, Biochemie GmbH, Kundl, Austria. The company has supplied penicillin G to the United States since December 9, 1999. This product is distributed by Geneva Pharmaceuticals, Inc. (Broomfield, Colorado), and should be available through wholesale suppliers.

Because quantities are limited, Geneva Pharmaceuticals is operating under a drug shortage allocation program. For emergency allocations, contact Jenny Whitehouse, Customer Support Supervisor, Geneva Pharmaceuticals, telephone (303) 438-4399; fax (303) 727-4656; e-mail: jenny.whitehouse@gx.novartis.com. Another source of penicillin G potassium in frozen bags is Baxter Corporation (Deerfield, Illinois) at http://www.baxter.com. If penicillin cannot be obtained, alternative treatment recommendations for some infections can be found at the CDC web site at: http://www.cdc.gov/nchstp/dstd/penicillinG.htm.

The CDC requests case reports from physicians about patients with neurosyphilis or congenital syphilis who have been treated with an alternative regimen from September 1, 1999 to February 15, 2000. To report such persons, a form may be downloaded from the CDC web site at: http://www.cdc.gov/nchstp/dstd/PenGForm.htm, completed, and mailed to CDC's National Center for HIV, STD, and TB Prevention, Corporate Square Boulevard, Atlanta, GA 30329. The form may also be requested by telephone at (404) 639-8191.

REFERENCE.

[1] Centers for Disease Control and Prevention, Update: Penicillin G Availability. *MMWR* 2000;49:61.

References to sites of non-CDC organizations on the Internet are provided as a service to MMWR readers and do not constitute or imply endorsement of these organizations or their programs by the CDC, U.S. Department of Health, or the State of Hawai`i Department of Health.

Submitted by Phillip P. Bruno, D.O., F.A.C.P., Chief, Communicable Disease Division.

Tuberculosis Cases

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tion, repeated chest x-ray examinations of individuals with significant tuberculin reactions, (without current disease), whether or not they have been treated with isoniazid, have not been shown to be of sufficient clinical value to justify their continued use."

3. Centers For Disease Control and Prevention. Prevention and Control of Tuberculosis in Facilities Providing Long-Term Care to the Elderly. Recommendations of the Advisory Committee For Elimination of Tuberculosis. *MMWR* 1990;39(RR-10):11-12.

"If tuberculosis preventive therapy is recommended, but individuals refuse or are unable to complete the recommended course, they should be advised to seek prompt medical attention if they develop signs or symptoms compatible with tuberculosis (e.g., persistent cough, anorexia, weight loss, night sweats). Routine periodic chest radiographs are not useful for detecting disease in the absence of symptoms; however, chest radiographs should be obtained promptly for persons with a cough that persists for more than 3 weeks and/or with a prolonged and unexplained fever."

Submitted by Philip P. Bruno, D.O., F.A.C.P., Chief, Communicable Division.

1999 Surveillance Summary

The following are provisional 1999 state and county communicable disease totals by date of report and incidence rate (cases/100,000 population). The diseases listed correspond to those in the Communicable Disease Surveillance graph that appears on page 7. Incidence rates are in bold print. Changes in state case totals from 1998 are also listed.

Disease	1999 Cases and Incidence Rates by State and County									
	State	Change	**Rate**	Honolulu	**Rate**	Hawaii	**Rate**	Maui	**Rate**	Kauai	**Rate**
AIDS	102	-67	**8.5**	74	**8.5**	15	**10.5**	11	**9.1**	2	**3.5**
Campylobacteriosis	879	246	**73.7**	693	**79.4**	68	**47.5**	74	**61.3**	40	**70.7**
Chlamydia	3112	518	**260.9**	2577	**295.4**	296	**206.8**	193	**159.9**	46	**81.3**
Giardiasis	114	-9	**9.6**	79	**9.1**	19	**13.3**	7	**5.8**	7	**12.4**
Gonorrhea	463	-38	**38.8**	429	**49.2**	12	**8.4**	14	**11.6**	8	**14.1**
Hepatitis A	22	-25	**1.8**	18	**2.1**	1	**0.7**	1	**0.8**	2	**3.5**
Salmonellosis	341	35	**28.6**	285	**32.7**	24	**16.8**	20	**16.6**	12	**21.2**
Tuberculosis	184	3	**15.4**	147	**16.8**	15	**10.5**	16	**13.3**	6	**10.6**
Ciguatera Poisoning	43	-6	**3.6**	5	**0.6**	4	**2.8**	17	**14.1**	9	**15.9**
Hansen's Disease	22	6	**1.8**	19	**2.2**	2	**1.4**	1	**0.8**	0	
Acute Hepatitis B	13	-2	**1.1**	10	**1.1**	1	**0.7**	1	**0.8**	1	**1.8**
Leptospirosis	41	4	**3.4**	15	**1.7**	15	**10.5**	2	**1.7**	9	**15.9**
Measles	3	2	**0.3**	3	**0.3**	0		0		0	
Pertussis	35	14	**2.9**	19	**2.2**	10	**7.0**	5	**4.1**	1	**1.8**
Rubella	0	-2		0		0		0		0	
Syphilis, Primary and Secondary	4	3	**0.3**	4	**0.5**	0		0		0	

1999 Index of Articles

The following articles were published in 1999 in the Communicable Disease Report. They are listed alphabetically by subject, with the date of publication and the Branch/program that authored the article.

Articles

Branches/Programs Submitting Articles and the Number of Articles Submitted

(1) STD/AIDS Prevention Branch (2)
(2) Epidemiology Branch - Zoonoses (11)
(3) Tripler Army Medical Center - Department of Pediatrics (1)
(4) Hansen's Disease Branch (1)
(5) Epidemiology Branch - Hepatitis Control Section (3)
(6) Epidemiology Branch - Hawai`i Immunization Program (11)
(7) Epidemiology Branch - Investigation Section (3)
(8) Tuberculosis Control Branch (2)
(9) Kaua`i District Health Office - Epidemiology (1)

Gonorrhea in Hawai'i

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tion dynamics and program intervention activities. The changing trends may be seen in four phases (Figure 1).

The first phase was characterized by rapid increases in gonorrhea morbidity in the 1970's to the early 1980's. This was due to a number of factors including: 1) the baby boomers born in the late 1940's and early 1950's reaching sexual maturity; 2) the sexual revolution of the 1960's; and 3) the initiation of gonorrhea intervention activities by the Department of Health, which initially increased the number of gonorrhea cases detected and reported.

Intervention activities initiated during this phase included:

1. A Gonorrhea Screening Program. This program began in 1972 and detected many of the 80% of infected women without symptoms. In 1970, 74% of the gonorrhea cases reported were in men. It was estimated that there were 3 women not being treated for every male gonorrhea case reported. This screening program was highly successful in detecting asymptomatic women with gonorrhea infection. The number of women detected with gonorrhea infection through this program peaked in 1977 with 2.6% positive of those tested. Since then the frequency of women detected through the screening program has slowly decreased to 0.53% in 1998.

2. The Sexually Transmitted Disease (STD) Clinic. The STD Clinic provides free and confidential STD screening, evaluation, treatment, education and risk reduction counseling for persons aged 14 years and older. Hours of operation has increased from 7-1/2 hours per week to 25 hours per week. The STD Clinic patient visits quadrupled from 3,000 visits per year in the early 1970's to over 12,000 patient visits in 1982.

3. Disease Intervention Specialists (DIS)/Field Investigation Services. The DIS provide individualized STD education and risk reduction counseling and perform partner notification and counseling activities for all the STD Clinic cases and for selected private cases. Initially, there was one part-time DIS covering the entire State. In the early 1970's, the STD Prevention Program hired three new DIS on O`ahu. Three DIS were also hired to perform communicable disease investigational activities, including STD prevention, on the neighbor islands. Currently, this section also coordinates

1) STD intervention activities with the military preventive medicine staff and private health care providers,
2) monitors trends in STD's to allow immediate intervention when new outbreaks occur,
3) provides technical guidance to the medical community,
4) provides educational information to the general public on all STDs, and
5) overseas the State's Gonorrhea and Chlamydia Screening Programs to assure testing and treatment of females at risk.

The second phase reflected a plateauing of cases. After reaching a peak gonorrhea case rate in 1977 at 464 cases per 100,000 population, the case rate leveled from 1977 to 1981. The number of gonorrhea cases in women reached its peak in 1977. The number of women found infected with gonorrhea also peaked in 1977 with 833 women detected through the Gonorrhea Screening Program. However, due to the influence of male-to-male transmission of gonorrhea and the lack of specific intervention activities to reduce gonorrhea transmission in the men who have sex with men (MSM) population, the number of gonorrhea cases in men continued to increase, reaching a peak in 1981. Evidence of the increasing number of STDs in the MSM population were seen in the increasing number of MSM attending the STD Clinic where 34% of the clinic patients in 1982 were MSM.

The third phase began in 1982, with AIDS awareness campaigns that directly impacted the MSM population. The number of gonorrhea cases reported in men declined dramatically, with annual decreases of 300 to 600 cases over the next six years while the number of cases in women decreased by an average of 100 cases per year. The number of MSM attending the STD Clinic also reflected dramatic decreases from over 4,400 patient visits made in 1982 to a little over 400 patient visits made in 1998. The aging of the baby boomers as they matured into adulthood also impacted on the STD rates.

The final phase, which reflected lower case rates started in the late 1980's with gonorrhea case rates below 100 cases per 100,000 population per year. The male to female sex ratio which started at three males for every female gonorrhea case reported in 1970, is now almost 1 to 1. The number of cases has continued to remain low over the past 5 years, with disease intervention activities helping to maintain the low rates.

Surveillance Enhancements

Active STD surveillance has always been a high priority to monitor and reduce STD incidence. With increasing concern about emerging antibiotic-resistant strains of gonorrhea, the STD surveillance program has enhanced its protocol to document risk factors of cases with antibiotic-resistant gonorrhea. In addition, detection of outbreaks or clustering of infections is receiving greater emphasis, again to document risk factors which will ultimately enable a reduction in incidence. The program is also placing greater emphasis on detection and treatment of adolescents. Finally, to increase efficiency and accuracy of disease reporting, electronic reporting of positive gonorrhea cultures is being explored.

For more information, please call the STD/AIDS Prevention Program in Honolulu at (808) 733-9281.

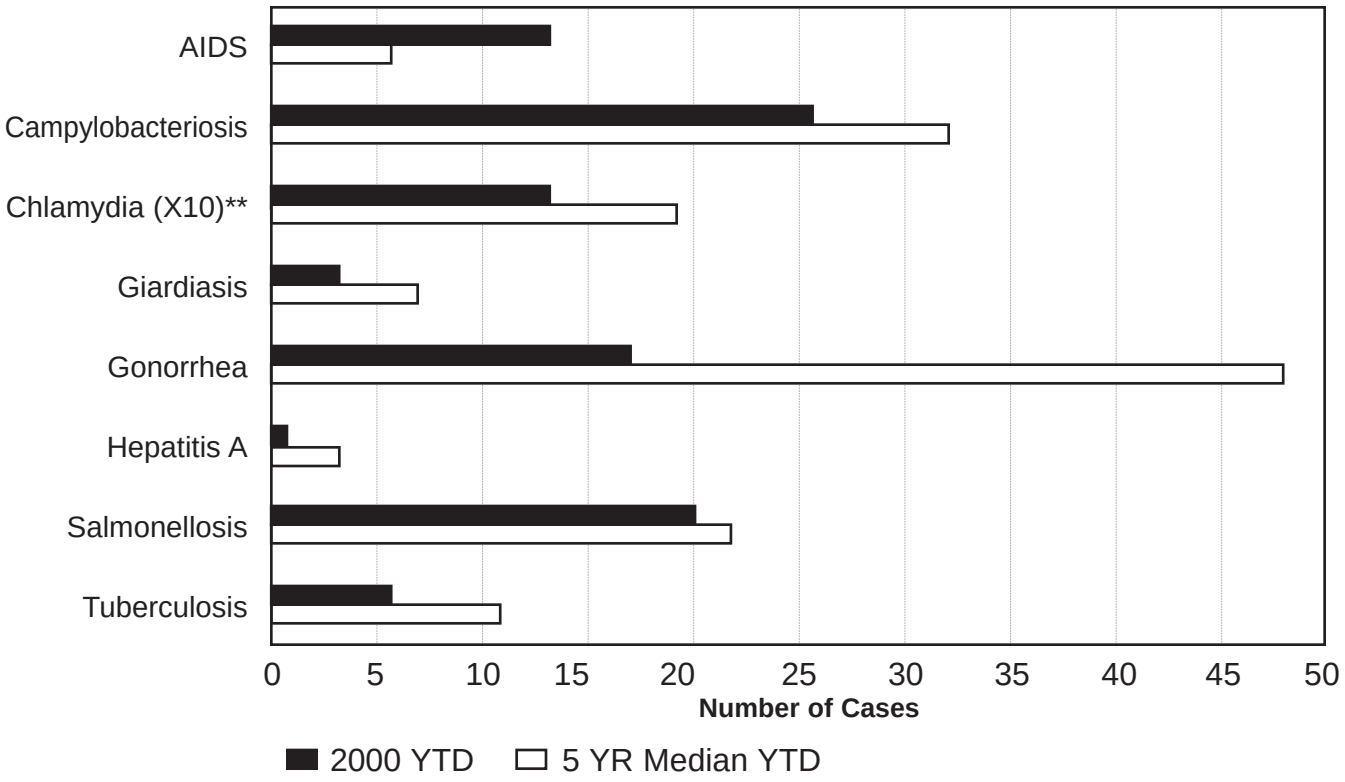
REFERENCE:

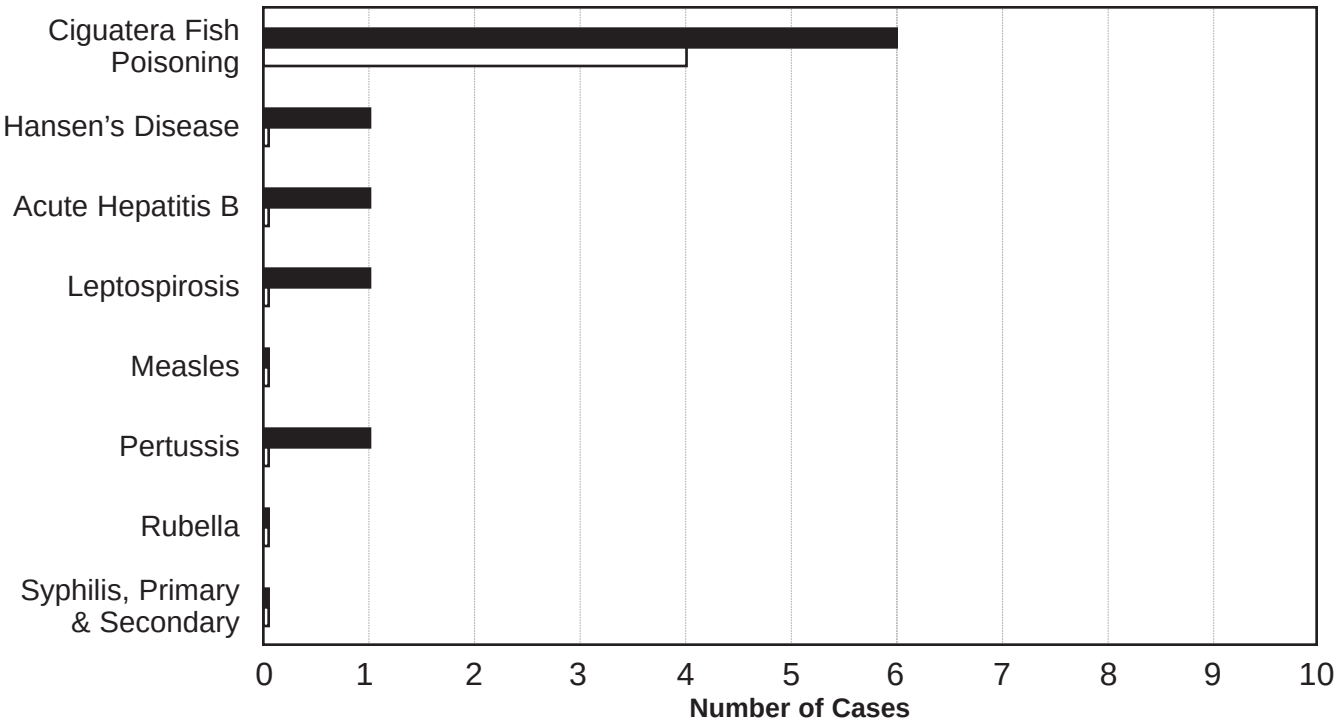
[1] Centers for Disease Control and Prevention, Sexually Transmitted Disease Surveillance - 1998. November, 1999.

Submitted by Roy G. Ohye, M.S., Coordinator, STD/AIDS Prevention Program, STD/AIDS Prevention Branch.

Communicable Disease Surveillance

Selected Diseases by Date of Report*
Hawai‘i, 2000 Year-to-date Through January





* These data do not agree with tables using date of onset or date of diagnosis.
** The number of cases graphed represent 10% of the total number reported.